

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. - 41. (Cancelled)

1. ~~42~~ (New) A method of electrochemical treatment comprising introducing an electrode, a substance which is in a subcritical state, and small amounts of electrolytic solution and, for emulsification purpose, surfactant into a reaction vessel such that said electrode is not in contact with said electrolytic solution, thereafter shifting said substance into a supercritical state, and electrolyzing said electrolytic solution thereby to effect electrochemical reaction, and said electrolytic solution being in uniformly emulsified condition when said electrochemical reaction takes place.

2. ~~43~~ (New) A method of electrochemical treatment according to claim ~~42~~¹, wherein reservoir vessels communicable with said reaction vessel are disposed exterior to said reaction vessel, and used said substance, used said electrolytic solution and/or used cleaning solution are stored in said reservoir vessels.

3. ~~44~~ (New) A method of electrochemical treatment according to claim ~~43~~²,

wherein said used substance stored in said reservoir vessels is regenerated and recycled to said reaction vessel and/or said used electrolytic solution and/or used cleaning solution stored in said reservoir vessels is regenerated and recycled to other reservoir vessels.

4. ~~45.~~ (New) A method of electrochemical treatment according to claim ~~42~~¹, further comprising a pretreatment process and wherein said electrochemical reaction and said pretreatment process are executed in one reaction vessel.

5. ~~46.~~ (New) A method of electrochemical treatment comprising introducing an electrode, a fluid which is in a subcritical state, and small amounts of electrolytic solution and, for emulsification, surfactant into a reaction vessel such that said electrode is not in contact with said electrolytic solution, thereafter pressurizing said reaction vessel to a level equal to or higher than atmospheric pressure but not higher than supercritical pressure of said fluid, and electrolyzing said electrolytic solution thereby to effect electrochemical reaction, said fluid and said electrolytic solution being in uniformly emulsified condition when said electrochemical reaction takes place.

6. ~~47.~~ (New) A method of electrochemical treatment according to claim ~~46~~⁵,

further comprising pressurizing said fluid before introducing said fluid into said reaction vessel.

7. ~~48~~ (New) A method of electrochemical treatment according to claim ~~46~~,
wherein reservoir vessels communicable with said reaction vessel are disposed exterior to said reaction vessel, and used said pressurized fluid, used said electrolytic solution and/or used cleaning solution are stored in said reservoir vessels.

8. ~~49~~ (New) A method of electrochemical treatment according to claim ~~46~~,
wherein said used pressurized fluid stored in said reservoir vessels is regenerated and recycled to said reaction vessel and/or said used electrolytic solution and/or used cleaning solution stored in said reservoir vessels is regenerated and recycled to other reservoir vessels.

9. ~~50~~ (New) A method of electrochemical treatment according to claim ~~46~~,
further comprising a pretreatment process and wherein said electrochemical reaction and said pretreatment process are executed in one reaction vessel.

~~10.~~ ~~51~~ (New) An apparatus for electrochemical reaction, the apparatus comprising a reaction vessel and an electrode received in the reaction vessel, the reaction vessel being adapted to receive a substance which is in a subcritical state and small amounts of electrolytic solution and, for emulsification purpose, surfactant, said apparatus being configured so that said electrolytic solution is received in said reaction vessel without contacting said electrode, means for shifting said substance in said reaction vessel into a supercritical state, and means for electrolyzing said electrolytic solution when said substance and said electrolytic solution are in uniformly emulsified state so that electrochemical reaction takes place.

~~11.~~ ~~52~~ (New) An apparatus for electrochemical reaction according to claim ~~51~~,¹⁰ further comprising reservoir vessels communicable with said reaction vessel and disposed exterior to said reaction vessel, the reservoir vessels being adapted to receive used said substance, used said electrolytic solution and/or used cleaning solution.

~~12.~~ ~~53~~ (New) An apparatus for electrochemical reaction of electroplating, according to claim ~~52~~,¹¹ further comprising other reservoir vessels, means for regenerating said used substance which was stored in said reservoir vessels, means

for recycling said regenerated substance to said reaction vessel, means for regenerating said used electrolytic solution and/or said used cleaning solution which was stored in said reservoir vessels and means for recycling said regenerated electrolytic solution and/or cleaning solution to said other reservoir vessels.

~~13.~~ ¹⁰ 54. (New) An apparatus for electrochemical reaction according to claim ~~51~~, further comprising means for conducting a pretreatment process and wherein said apparatus is adapted for carrying out said electrochemical reaction and said pretreatment process in said one and the same reaction vessel.

~~14.~~ ¹³ 55. (New) An apparatus for electrochemical reaction according to claim ~~54~~, further comprising at least a second reaction vessel, said reaction vessels being arranged so as to be capable of executing said electrochemical reaction and said pretreatment process as well as a post treatment process or an electrolyzing process of said electrolytic solution, and wherein said reaction vessels are arranged to allow preceding and succeeding treatment processes therein, pretreatment and post treatment processes therein, and sequential treatment processes therein reaction.

~~15.~~ ¹⁴ 56. (New) An apparatus for electrochemical reaction according to claim ~~55~~, further comprising means for transporting from said first reaction vessel to said

second reaction vessel, after a prescribed treatment process is executed in said first reaction vessel, said electrolytic solution, a cleaning solution or surfactant for a succeeding treatment process in said second reaction vessel.

~~16. 57~~ (New) An apparatus for electrochemical reaction comprising a reaction vessel, an electrode received in said reaction vessel, said reaction vessel being adapted to receive a substance which is in a subcritical state and small amounts of electrolytic solution and, for emulsification purpose, surfactant, for emulsification purpose, without said electrolytic solution contacting said electrode, means for pressurizing said reaction vessel to a level equal to or higher than atmospheric pressure but not higher than critical pressure of said substance, and means for electrolyzing said electrolytic solution when said substance and said electrolytic solution are in uniformly emulsified state so that electrochemical reaction takes place.

~~17. 58~~ (New) An apparatus for electrochemical reaction according to claim ~~57~~¹⁶, wherein the substance is a pressurized liquid and the apparatus further comprises means for introducing the pressurized liquid into said reaction vessel and means for pressurizing said reaction vessel to a level equal to or higher than atmospheric pressure but not higher than a supercritical pressure of said pressurized liquid.

~~18.~~ ¹⁶ ~~59~~ (New) An apparatus for electrochemical reaction according to claim ~~57~~, further comprising reservoir vessels communicable with said reaction vessel and disposed exterior to said reaction vessel, and reservoir vessels for receiving used said pressurized liquid, used said electrolytic solution or cleaning solution.

~~19.~~ ¹⁶ ~~60~~ (New) An apparatus for electrochemical reaction according to claim ~~57~~, further comprising other reservoir vessels, means for regenerating used said pressurized liquid stored in said reservoir vessels and recycling the regenerated liquid to said reaction vessel and means for regenerating used said electrolytic solution or cleaning solution stored in said reservoir vessels and recycling said regenerated solutions to said other reservoir vessels.

~~20.~~ ¹⁶ ~~61~~ (New) An apparatus for electrochemical reaction according to claim ~~57~~, further comprising means for carrying out preceding and succeeding treatment processes and wherein said reaction vessel is adapted for the carrying out therein of said preceding and succeeding processes as well as said electrochemical reaction.

~~21.~~ ¹⁶ ~~62~~ (New) An apparatus for electrochemical reaction according to claim ~~57~~, further comprising at least a second reaction vessel, said reaction vessels

being adapted for executing said electrochemical reaction and preceding and succeeding treatment processes or an electrolyzing process of said electrolytic solution and preceding and succeeding treatment processes thereof, and said reaction vessels being adapted for executing said preceding and succeeding treatment processes sequentially.

~~22.~~ ¹⁶ 63. (New) An apparatus for electrochemical reaction according to claim ~~57~~, further comprising means for transporting from said first reaction vessel, after a prescribed treatment process is executed in said first reaction vessel, said electrolytic solution, cleaning solution or surfactant to said second reaction vessel, where a succeeding treatment process is to be carried out.